



Aviation Education News



Distributed Quarterly to Promote Aviation Education and Awareness in Virginia

May 2005

In this Issue

Air Show Posters Celebrate "More Than 100 Years of Human Flight"

..... Page 1

President's Notes

Page 2

2005 International Aviation Art Contest Winners (Category I and II)

..... Page 3

2005 International Aviation Art Contest Winners (Category III) ...

Page 4

NASA, FAA, and NCAM Prepare for SATS Demo

..... Page 5

Students Attend Hershey Airports Conference

Page 5

2005 Aviation Teachers Grant Program

Page 5

Aviation Education Corner

..... Page 6

Virginia and the SATS Program

..... Page 7

Virginia Teachers Receive Aviation Grants

..... Page 7

Calendar of Events

Page 8



Air Show Posters Celebrate "More Than 100 Years of Human Flight"

The 2005 International Aviation Art Contest asked students ages 6-17 to create an air show poster that commemorated "More Than 100 Years of Human Flight." Virginia's students responded by creating a wide variety of posters celebrating all aspects of flight. Featured in the artwork were hot air balloons, Wright Flyers, warbirds, jets, and even spacecraft.

The 186 Virginia entries were separated into three categories, according to age, and judged by a panel of three judges. Dr. Luther Gore, Mr. Dick Carpenter, and Mr. William Kluge, all Virginia aviation artists, evaluated and ranked the artwork. (ASAA - www.asaa-avart.org).

The nine students receiving recognition live in all areas of the state from Virginia Beach to Danville. Each will receive a plaque noting their achievement as well as a small aviation-related gift. Their artwork has been forward to the National Association of Aviation Officials (NASAO), located in Silver Spring, Maryland for national judging. National winners will compete in an International Competition later this year.

The 2005 International Aviation Art Contest is sponsored by the National Aeronautic Association, National Association of State Aviation Officials, National Aeronautics and Space Administration, and the Federal Aviation Administration, in cooperation with the Federation Aeronautique Internationale (FAI - www.fai.org), to motivate and encourage young people of FAI-member nations to become more familiar with and participate in aeronautics, engineering, and science. The Virginia level of the contest is sponsored by the Virginia Department of Aviation.

See Virginia's winning artwork on pages 3 and 4.

PRESIDENT'S NOTES

The NASA Langley Research Center's Office of Communication & Education (OCE) is working in collaboration with the Virginia Department of Aviation which is an excellent way to maintain two-way communication between federal and state aviation education concerns.

The following web sites are great places to see what is on-going using cutting edge technology:

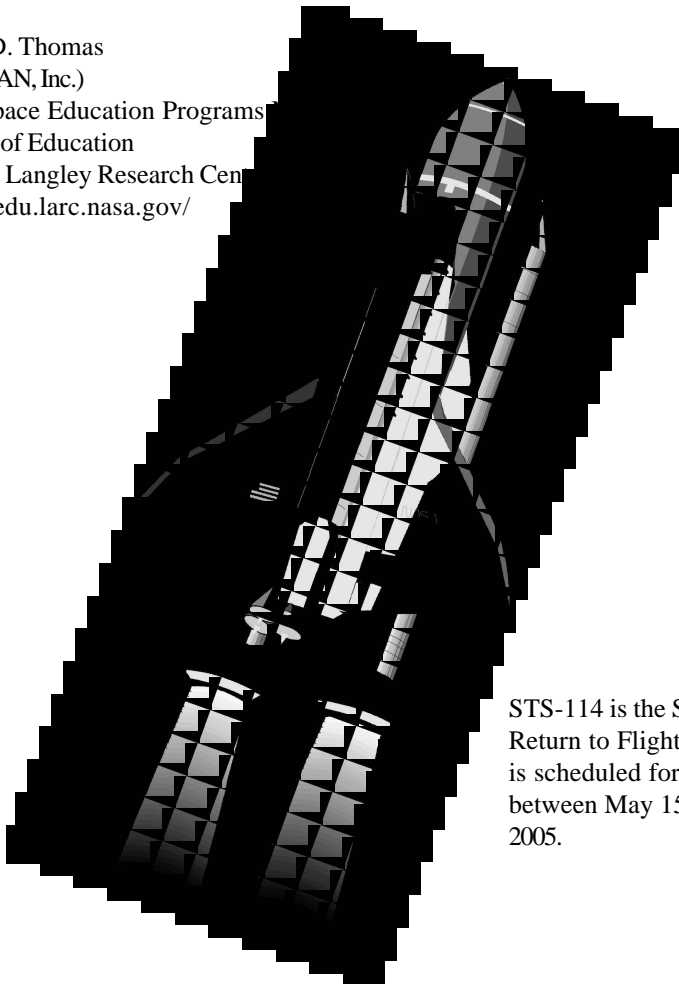
NASA Homepage (Portal) www.nasa.gov/home/index.html

Aeronautics Research Mission Directorate www.aero-space.nasa.gov

The National Science Teacher Association (NSTA) will be holding it's national conference in Dallas, TX on March 31-April 3, 2005. This is an opportunity for our teachers to get caught up to-date with what is going on to help our students become the leaders of tomorrow.

The annual "Sun-n-Fun" General Aviation fly-in will be held at Lakeland, FL on April 12-18, 2005. The free day for teachers is Saturday the 16th. There will be free workshops and hands-on activities.

Peter D. Thomas
(ViGYAN, Inc.)
Aerospace Education Programs
Office of Education
NASA Langley Research Center
<http://edu.larc.nasa.gov/>



STS-114 is the Space Shuttle's Return to Flight Mission and is scheduled for launch between May 15 and June 3, 2005.

VASEF AVIATION EDUCATION NEWS

is published quarterly in support of aviation education in the Commonwealth of Virginia by the Virginia Department of Aviation.

VASEF BOARD

Peter D. Thomas, President
(NASA)

Betty Wilson, Secretary
(Virginia Department of Aviation)

Tom Tyndall, Treasurer
(Aviation Educator)

Dr. Richard Byles
(Virginia Air and Space Center)

Curtis Grant, Member
(Aviation Academy)

Ted Morris, Member,
(Virginia Aviation Museum)

LaVern Phillips
(Aviation Institute of Maintenance)

Jack Simons, Member
(Experimental Aircraft Association)

Darryl Stubbs, Member
(Hampton University)

Tom Vick, Member
(Averett University)

VASEF NEWS Editor: Betty Wilson

Please send story ideas, photographs, calendar events, and other items for possible inclusion to:

Betty Wilson
Virginia Department of Aviation
5702 Gulfstream Road
Richmond, Virginia 23250-2422
(804) 225-3783
(804) 236-3635 (FAX)
betty.wilson@doav.virginia.gov (E-mail)
<http://www.doav.virginia.gov> (Web site)



VASEF PURPOSE

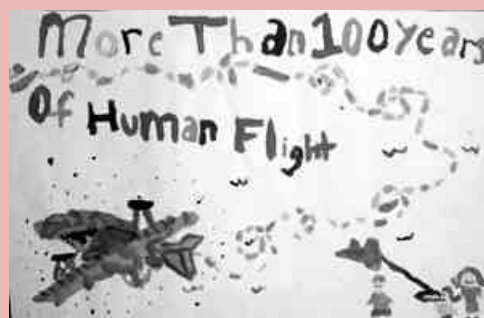
The Forum is a non-profit organization to promote and foster aviation and space education among public and private schools, colleges and universities, and community and civic groups, and to promote increased public understanding of aviation and space and their economic, social, and career values in our society and in the Commonwealth of Virginia.

2005 International Aviation Art Contest Winners

Category I (ages 6-9)



First Place
Karon Jones
Age 8
Smithfield



Second Place
Madison Q. Thorpe, Age 9
Fredericksburg



Third Place
Grace Catherine Kaiser, Age 7
Louisa

Category II (ages 10-13)



First Place
Scott Hammack
Age 11
Fredericksburg



Second Place
Chantz N. Parker, Age 10
Danville



Third Place
Tiana Johnson, Age 13
Portsmouth

Category III, Ages 14-17



First Place

Jovan Hall

Age 16

Virginia Beach



Second Place

Jacqueline Barton

Age 17

Virginia Beach



Third Place

Kevin Choi

Age 17

Centreville

National Air and Space Museum Calendar

Saturday, May 7, 2005, 8:00 p.m. - 11:00

p.m. (Sky Meadows State Park)

Saturday Star Party

Sean O'Brien

Thursday, May 12, 2005, 6:00 - 9:00 p.m.,

(National Mall)

Exploring Space Lecture Series

Near Earth Objects: Finding Them Before They Find Us

Dr. Donald K. Yeomans

Free, Tickets Required

Saturday, May 14, 2005, 10:00 a.m. - 3:00

p.m. (National Mall)

Family Day

Wright Brothers Family Day

Free

Thursday, May 19, 2005, 8:00 - 9:00 p.m.

(National Mall)

Charles A. Lindbergh Memorial Lecture

An Evening with Burt Rutan

Mr. Burt Rutan

Free, Tickets Required

Thursday, June 9, 2005, 6:00 - 9:00 p.m.

(National Mall)

Exploring Space Lecture Series

Deep Impact

Dr. Michael A'Hearn

Free, Tickets Required

Saturday, June 25, 2005, 10:00 a.m. - 3:00

p.m. (Steven F. Udvar-Hazy Center)

Family Day

Reach for the Sky: Be A Pilot Family Day

Free

Saturday, June 25, 2005, 8:30 p.m. - 11:00

p.m. (Sky Meadows State Park)

Saturday Star Party

Sean O'Brien

Now Open:

National Air and Space Museum

Steven F. Udvar-Hazy Center

Located at the Washington Dulles International Airport, the Udvar-Hazy Center will house 200 aircraft and 135 large space artifacts including the Space Shuttle Enterprise, SR-71 Blackbird, and B-29 Superfortress Enola Gay.

For more information visit:

www.nasm.si.edu

NASA, FAA, and NCAM Prepare For SATS Demo

The National Consortium for Aviation Mobility (NCAM), the National Aeronautics and Space Administration (NASA) and the Federal Aviation Administration (FAA) are combining forces to present SATS 2005: A Transformation in Air Travel at the Danville Regional Airport in Danville, Va., on June 5-7, 2005.

The proof-of-concept demonstration will showcase the Small Aircraft Transportation System (SATS) project. The five-year, public-private partnership is developing operating capabilities and enabling technologies necessary to make safe, affordable, on-demand air travel available through the nation's small public airports.

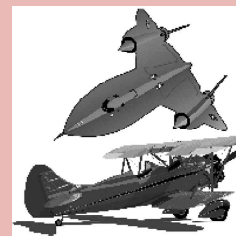
The SATS project is focused on four operating capabilities that may help permit people and goods to travel faster and farther, anywhere and any time. These capabilities include:

- Automated flight-path management systems that allow higher volume operations at airports that don't have control towers or terminal radar.
- Guidance and display systems to allow pilots to land safely in low visibility conditions at minimally equipped airports.
- On-board graphics and data displays to improve single pilot performance.
- Assessment of the effects of seamlessly integrating a large number of SATS aircraft into the national airspace.

Opening with a dynamic fly-in at the Danville Regional Airport on Sunday, June 5, the high profile Danville event will demonstrate many of these technologies and is designed to attract aviation enthusiasts, business executives, congressional leaders, state and local economic development officials and members of key science and aviation agencies. Students will also be on site participating in a SATS educational experience that teaches through interactive displays.

The SATS vision is to enable small aircraft carrying from four to ten passengers to safely access more than 3,000 under-used rural and suburban airports, most of which don't have radar or air traffic control towers. Nearly all of the people in the U.S. live within 30 minutes of one of these airports. This capability could revolutionize personal and business travel, reducing the necessity for extended automobile travel and reducing the strain on the nation's major commercial airports.

For registration and/or exhibit information for SATS 2005, visit www.sats2005.com or telephone 757-864-8332.



The Virginia Aviation Museum

May 20, 2005

Guest Speakers Series

Speaker TBD. Free. 7:00 p.m.

June 17, 2005

Guest Speakers Series

Speaker TBD. Free. 7:00 p.m.

June 2005

Air Fair

10:00 a.m. - 4:00 p.m.

Take off for a fun-filled day featuring airplanes of all sizes. Take part in entertaining and educational aviation-related activities for the entire family.

The Virginia Aviation Museum is located at the entrance to Richmond International Airport. For additional information on museum hours and programs call (804) 236-3622.

Students Attend Hershey Airports Conference

The Federal Aviation Administration (FAA) Eastern Region Airports Division, in association with Penn State University, held their Annual Conference on March 14-16, 2005 in Hershey, Pennsylvania. The Conference is attended by aviation management, consulting engineers and planners, state Department of Transportation/Aviation personnel, and the FAA.

For the past four years, the sponsoring organizations have been fortunate to sponsor college students to attend the Conference. This year two Virginia students, one from Averett University in Danville and one from Hampton University, in Hampton, were selected to attend this informational and educational event.

Aviation Education Corner

Tetrahedron Kite
was presented by Hugh Hill
at NCASE '97

Aerospace Activities Using Straws Making a Tetrahedron Kite

Materials:

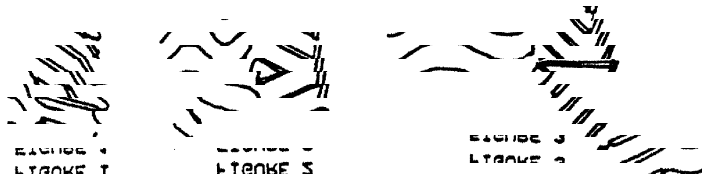
For each tetrahedron, you will need:

- 6 straight straws
- 1 piece of string (180 cm long)
- tissue paper

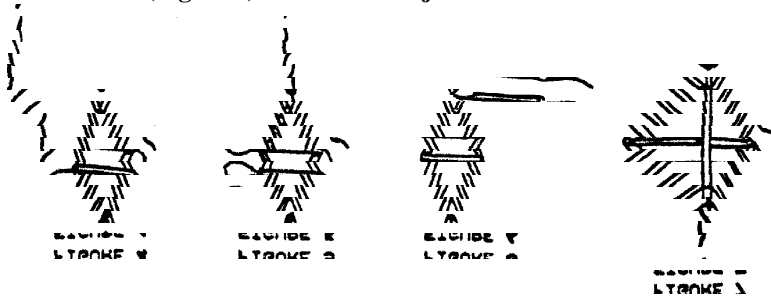
Note: It takes 4 tetrahedra to make the basic kite. The larger kite will take a total of 10 tetrahedra. One piece of tissue paper is enough to cover a tetrahedron.

Procedure:

1. Thread the string through 3 straws (Figure 1) and tie them into a triangle (Figure 2).
2. Thread one of the long strings through 2 straws (Figure 3).



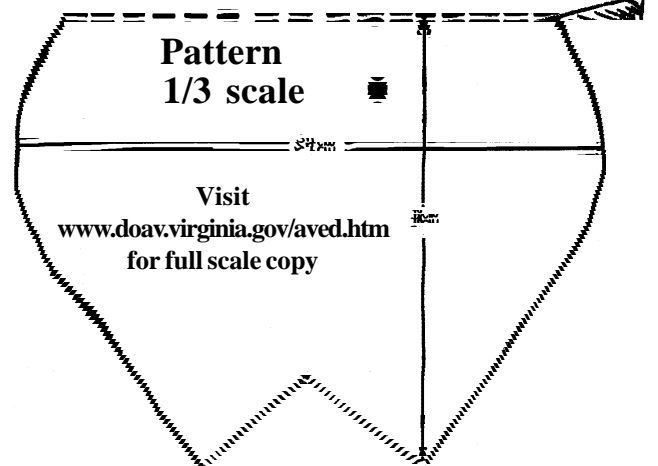
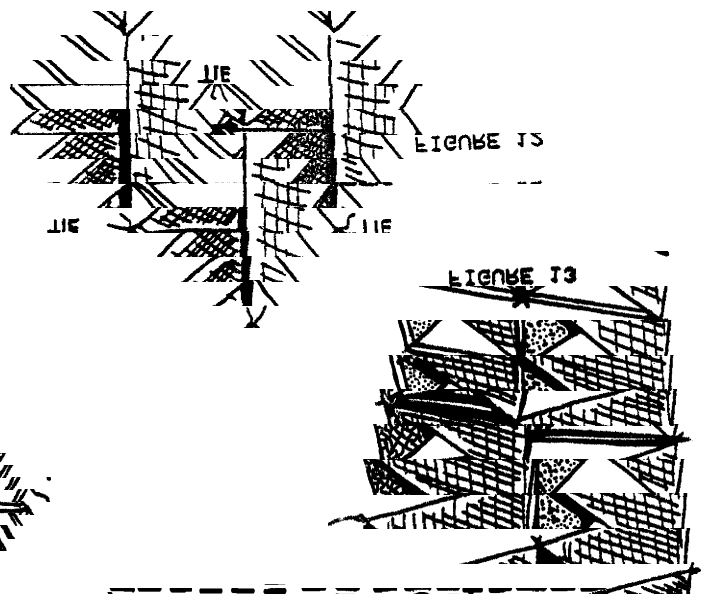
3. Tie that string to one of the corners of the triangle (Figure 4) making 2 triangles.
4. Thread the long string that is left through one of the adjacent straws so that it comes out at the tip of one of the triangles (Figure 5).
5. Thread that string through one straw (Figure 6).
6. Tie the string to the tip of the other triangle to make a tetrahedron (Figure 7). Make 3 more just like it.



7. Cut out the tissue according to the directions on the pattern.
8. Unfold a tissue and lay a tetrahedron on it so that one straw is on the fold line of the tissue (Figures 8 & 9).
9. Apply glue to both of the tissue paper flaps lying outside the triangle (Figure 10). Fold these flaps over the straws and glue them down inside the triangle.
10. Pivot the tetrahedron so that the opposite side of the tetrahedron comes down on the other side of the tissue. Glue the flaps as before (Figure 11). Notice how the tissue part looks like bird wings.



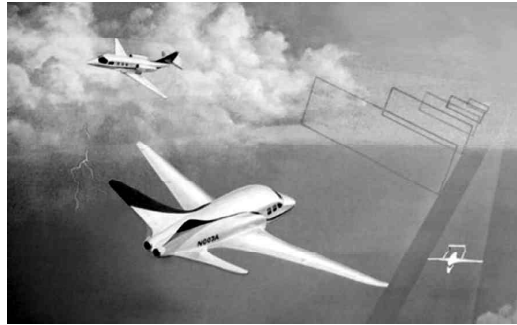
11. Arrange three of the tetrahedra in a triangle as shown in Figure 12. Be sure that they are all facing in the same direction.
12. Tie the three tetrahedra together at the places where they touch each other using the string left on the corners of the tetrahedra or cutting another piece of string.
13. Place the fourth tetrahedron above the triangle formed by the first three. Tie at the corners.
14. Stick all the left-over string inside the straws.
15. Tie a string for flying at the "head" of one of the lower "birds" or tetrahedra (Figure 13). Fly it like a bird.



Virginia and the SATS Program

Virginia will host the National Demonstration of the SATS program in Danville, VA June 5 – 7, 2005. This demonstration will highlight the program elements for research that will lead to safer, more efficient, and higher levels of community accessibility by smaller aircraft using smaller airports within the national aviation system. This evolution toward the Small Aircraft Transportation System will provide for an expanded opportunity of personal mobility by air to over 5400 public-use airports throughout the U.S.

Virginia has been at the forefront of the development of the SATS program since 1999, when NASA approached the Department of Aviation about how the SATS concept would interface with developers of airport infrastructure. We have been the leading state partner in the program. The Virginia SATSLab, Inc. was a founding member of the National Consortium for Aviation Mobility (NCAM), who partners with NASA and the FAA in pursuit of SATS program goals. NCAM is based in Hampton, VA at the NASA Langley Research Center, and is populated by other state based SATSLabs that have followed the Virginia lead with this important program. Those states include Florida, Maryland, North Carolina, Michigan, Indiana, Oklahoma, and Nebraska.



SATS will advance the utility of smaller aircraft using General Aviation airports in Virginia and the nation so that mobility, and consequent commerce, will be offered to a wider range of the U.S. population. Virginia is proud to help lead the way!

Virginia Teachers Receive Aviation Grants

Six Virginia teachers were awarded Virginia Department of Aviation Teachers Grants for the 2004/05 school year. **Ms. Susan Batts** of Douglas School in Leesburg will use her grant to integrate an aerial perspective into her art classes. **Ms. Sandra C. Cole** of J. M. Bevins Elementary School in Grundy will use her grant to support the learning strands of Force, Motion, and Logic. Students, working in teams, will research airplane designs, construct gliders, test the designs, record data, and evaluate the results. **Ms. Elaine B. Lavelle** and **Ms. Courtney L. McGraw** from Salem Elementary School in Fredericksburg will use their grant to implement their "Historical Hangars" program which "links prior knowledge to flight." **Ms. Gwyndolyn Lee-Lomax** of Francis Mallory Elementary School in Hampton will use her grant to start a "Junior Pilot Awareness" group. **Ms. Karen Malloy** of McLean High School in McLean will use her grant to conduct a program on hot air balloons. Students will research the history and requirements for hot air balloons and in the process learn about the physical properties of gases. **Dr. Teresa Wiita** of Martinsville Middle School in Martinsville will use her grant to investigate Newton's Three Laws of Motion. Students will create a paper design of a rocket and, using specialized software, test their design, improve it, and then construct and fly their rocket.

Thanks to the National Air Transportation Foundation (NATF) Ace Grant program five additional teachers who applied also received grants. Ms. Barbara Jones from Arlington Science Focus School, Ms. Lydia Trickey and Ms. Kim Albert of Cluster Springs Elementary, Mr. Paul Kalmus of Green Run High School, Ms. Terri A. Sanchez of Denbigh High School, and Ms. Krista Skelton of South of Dan Elementary School each received an Ace Grant.

SCIENCE MUSEUM OF VIRGINIA CALENDAR

EXHIBITIONS

Mary Morton Parsons Earth-Moon Sculpture (kugel) - Permanent
Adventures in 3 Dimensions - May 21-Sept. 5

EVENTS

Scooper Bowl (ice cream and concert) - June 25

IMAX FILMS

Bugs (thru July 3)
Mystery of the Nile (thru July 3)

MULTIMEDIA SHOWS

Gas Giants (thru Jun 12)

CARPENTER SCIENCE THEATRE COMPANY

Adventures in Archeology (thru June 3)
Rats! (June 15-July 15, 2005)

LIVESKY: Informal "live" planetarium presentation of the month's celestial events. Third Friday of every month (except Oct.)

SKYWATCH: Third Friday of every month (weather permitting) on the front lawn.

24-Hour Information: (804) 367-0000
Box Office: (804) 367-1080
24-Hour Skywatch Information: (804) 367-8277
24-Hour TDD Information: (804) 367-9760
General Information - TDD: (804) 367-6552
Group Scheduling: (804) 367-6552
Home Page: <http://www.smv.org>

VIRGINIA AIR AND SPACE CENTER CALENDAR

EXHIBITS:

Adventures in Flight Gallery

TRAVELING EXHIBITS:

The Lost Spacecraft (May 28 - Sept. 4)

IMAX FILMS:

Fighter Pilot: Operation Red Flag
Aliens of the Deep 3D
Robots

SIGMA SERIES LECTURES

Toward a Sustainable Mars Infrastructure (for Human Exploration), by Robert L. Ash
May 5, 2005, 7:30 p.m.

Speaker TBD, June 2, 2005

LIVE SCIENCE DEMONSTRATIONS

Star Station One: International Space Station
Learn about the International Space Station.

Call (804) 727-0900 for showtimes

Visit the Center's Home Page:
<http://www.vasc.org>

Calendar of Events

May 2-5, 2005

Virginia Aviation Safety Week programs will take place in Richmond, Suffolk, Manassas, and Roanoke. Special guest speaker will be aerobatic performer Patty Wagstaff.

May 14, 2005

Middle Peninsula Regional Airport's First Fly-in will take place from 9:00 a.m. - 5:00 p.m. For more information contact Tim Gaylord at (804) 785-9725 or tgaylord@fly-fyj.com or visit www.fly-fyj.com.

May 14-15, 2005

Langley Air Force Base Air Show "AirPower Over Hampton Roads" featuring the U.S. Air Force Thunderbirds. For more information call (757) 365-0088.

May 21-22, 2005

Suffolk Executive Airport Fly-In.

May 21, 2005

Franklin Municipal Airport Fly-In will take place from 10:00 a.m. - 4:00 p.m. For more information contact Jimmy Gray at (757) 562-8764.

June 5-7, 2005

SATS Demonstration Event will be held in Danville, Virginia.

June 5, 2005

New London Fly-In will be held at New London Airport in Forest, Virginia. An old-fashioned fly-in and car show. Breakfast and lunch, air rides, kid's flour bomb drop, family fun events. For more information contact David Miller at (540) 525-2988 or davidm@rev.net.

June 25-26, 2005

Southside Skyfest will be held at the Danville Regional Airport. For more information contact Marc Adelman at (434) 799-5110 or madelman@ci-danville.va.us or visit www.danville-va.gov.

October 1-2, 2005

Virginia State EAA Fly-In. Ninth Annual Virginia State EAA Fly-In at Dinwiddie County Airport.

Visit www.doav.virginia.gov/calendar.htm for more events.

Aviation Education Supporters:

VASEF projects are funded by our membership fees and by donations from our member organizations. We would appreciate your support through membership in our organization.

_____ Regular Membership \$25.00 annually (July - Dec. \$12.50)

_____ Non-Profit Organization \$25.00 annually (July - Dec. \$12.50)

_____ Corporate Membership \$100.00 annually (July - Dec. \$50.00)

_____ New Member _____ Renewal

Date: _____

Name: _____

Name of Organization: _____

Occupation: _____

Address: _____

City: _____ State _____ Zip _____

Telephone _____

Please Return to: Tom Tyndall, VASEF Treasurer
5702 Gulfstream Road
Richmond, Virginia 23250-2422



VASEF Aviation Education News

5702 Gulfstream Road
Richmond, Virginia 23250-2422



Inside:

Art Contest Winners

SATS Demonstration

Teachers Grant Recipients

Presorted
Standard
U.S. POSTAGE
PAID
Richmond, Va
Permit No. 949

Please Post for Teachers